Amateur Radio & Skywarn

Brian Daly, WB7OML

Spotter ID KING-145 & MAA-045

Purpose

- This is NOT Skywarn Spotter Training
  - Only the NWS trains spotters

- This is an overview of how Amateur Radio supports the Skywarn & NWS mission

What is Skywarn ??

- Skywarn spotter program is a nationwide network of volunteers ***trained by the National Weather Service*** that provide timely and accurate severe weather reports
  - Skywarn spotters are not by definition "Storm Chasers"
- Reports from volunteer citizens which are then used by the NWS to send out warnings and short-term forecasts to the public. Reports are via:
  - phone or internet,
  - citizen band radio operators, or
  - licensed Amateur Radio Operators
  - the general public is also an integral part of Skywarn
- Skywarn Spotters provide “ground truth” on the atmosphere that the NWS observes from radar, satellites and various reporting stations.

Skywarn History

- 1942 -1943, the Weather Bureau cooperated with the military in setting up volunteer storm spotter networks to protect military installations
  - The primary concern was for lightning near ordnance plants
- The program grew substantially during the war, and the spotter mission expanded to include other hazardous weather, including tornadoes
- After WWII, spotter networks were maintained for military installations

Skywarn History

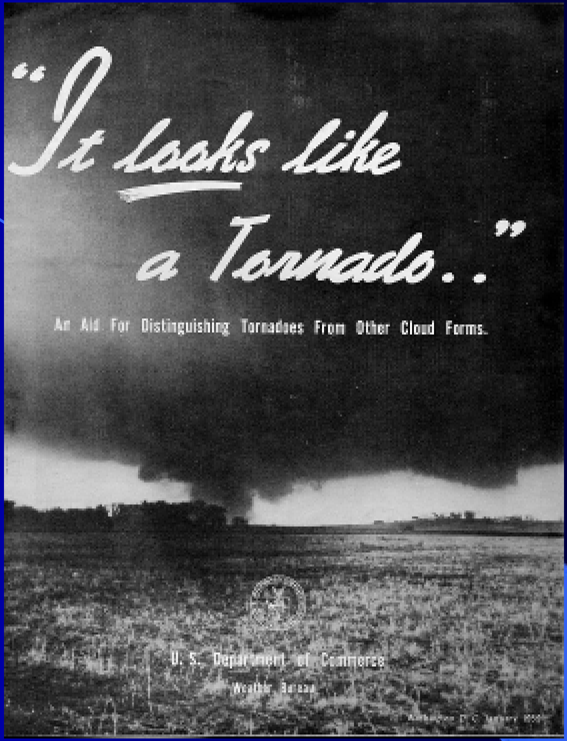
- On May 25, 1955, a tornado in Udall, Kansas killed 80 people and injured 273.
  - The NWS decided to recruit severe weather spotters to
    - help obtain real time severe weather information
    - help extend lead time and increase accuracy of severe weather forecasts
  - On March 8, 1959, the NWS held the first training course in Wellington, Kansas for 225 severe weather spotters
  - In 1965, the Natural Disaster Warning System (NADWARN) was established to coordinate the natural disaster-related emergency functions of various Federal agencies
    - A special, tornado-specific plan called Skywarn was created, under the guidance of the National Weather Service

SEVERE STORM REPORTING HANDBOOK

U. S. DEPARTMENT OF COMMERCE

WEATHER BUREAU

1956 Spotter Handbook



"It looks like a Tornado.."

An Aid For Distinguishing Tornadoes From Other Cloud Forms.

U. S. Department of Commerce

Weather Bureau

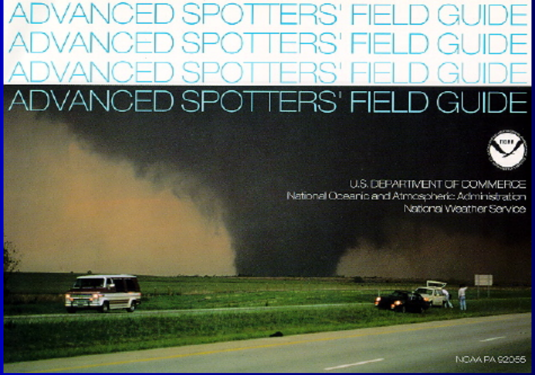
1959 Pamphlet

U.S. DEPARTMENT OF COMMERCE • National Oceanic and Atmospheric Administration • National Weather Service

Spotter's Guide

for Identifying and Reporting Severe Local Storms

1981 Spotter's Guide



ADVANCED SPOTTERS' FIELD GUIDE

ADVANCED SPOTTERS' FIELD GUIDE
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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

NOAA PA 92055

Skywarn and Amateur Radio

- ARRL and NWS have an MoU
  - serves as a framework within which volunteers of the ARRL may coordinate their services, facilities, and equipment with NWS in support of nationwide, state, and local early weather warning and emergency communications functions
- Cooperate with Regional Weather Service Headquarters for the purpose of establishing organized Skywarn networks with radio amateurs serving as communicators and spotters
- http://www.arrl.org/FandES/field/mou/weather.html

Amateur Radio Spotter Requirements

- Amateur Radio License

- NWS Trained Skywarn Spotter
  - Only the NWS trains spotters

- Optional → desire to be an Amateur Radio Skywarn Net Control Operator

Skywarn Spotter Reports

- When significant, or severe weather occurs anywhere within the local County Warning Area, the Weather Service turns to the Skywarn Spotter Network to obtain timely and accurate reports.
- This network is comprised of individuals or groups, generally associated with the following:
  1. Emergency Service Organizations (Fire, Police, etc),
  2. Volunteer Organizations (HAM Radio, Citizens' Band Radio, etc),
  3. Individual Citizens,
  4. Cooperative Observers.

Spotters are ***not*** Storm Chasers

WX4NHC

Storm Chasing Adventure Tours

Spotter Safety: Your Number One Priority

- Your first priority as a storm spotter is to STAY SAFE!
  - Severe storms present a number of hazards, any of which could lead to injury or death if you’re not extremely careful.
- http://www.srh.noaa.gov/oun/stormspotting/safety.php

Severe Weather Reports – Why?

Why are severe weather reports important to the National Weather Service?

- They provide ground-truth information.
- They aid in their situational awareness.
- They assist in their verification efforts.

A Fact About Severe Reports:

- Severe weather reports have a positive impact on the entire integrated warning system
  - Integrated warning system consists of the four basic elements: forecast, detection, dissemination, and public response

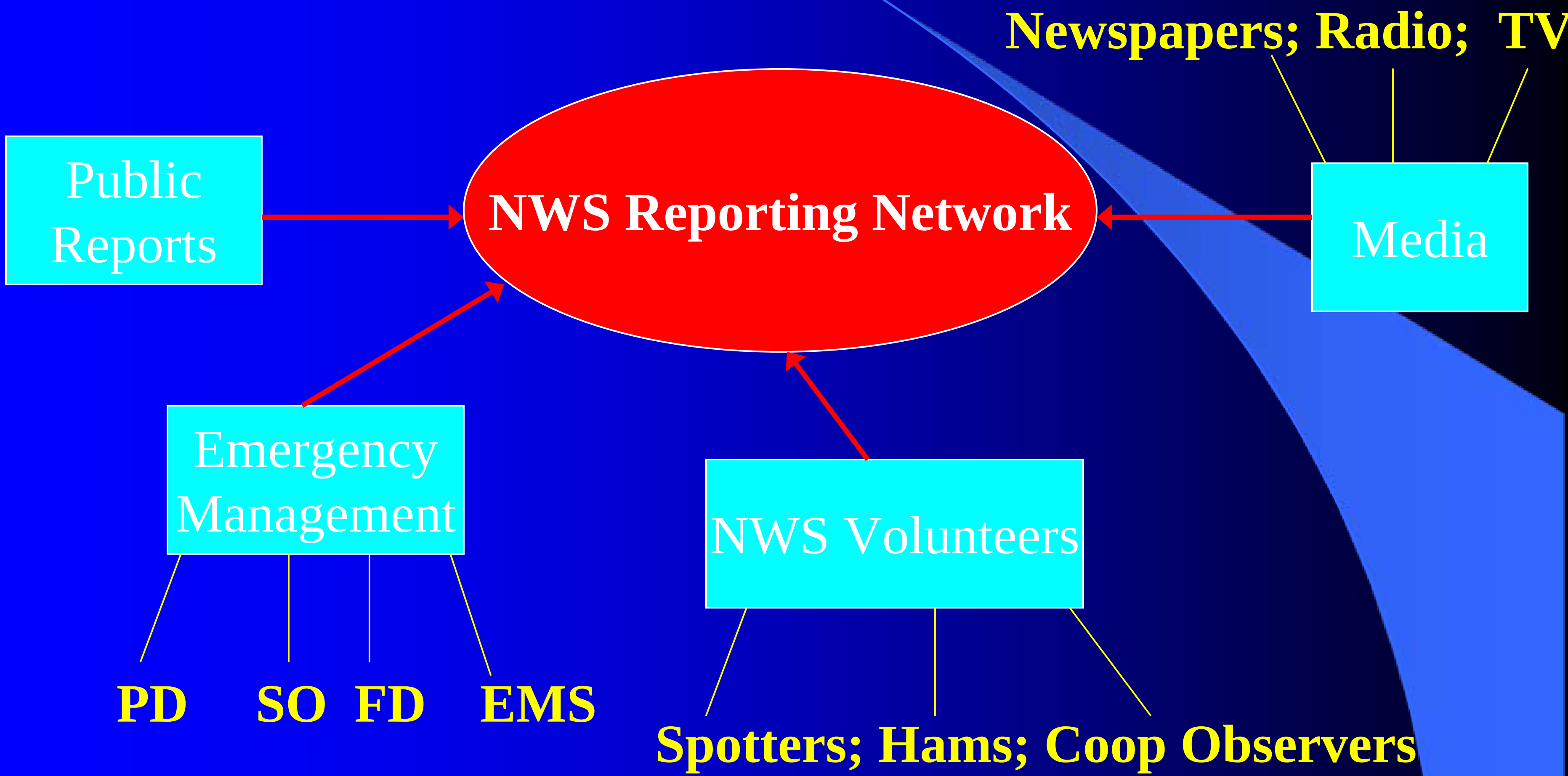
The Simple Equation For Getting Reports

Building trust leads to better communication

Better Communication = More Reports

- **The spotter training focuses on teamwork.**
- **NWS nurture partnerships with emergency management.**
- **NWS proactively collaborates with the media.**
- **NWS is supportive of our volunteers - the Skywarn Spotters, Amateur Radio Operators, and Coop Observers.**

The NWS Reporting Network



Newspapers; Radio; TV

Public Reports

NWS Reporting Network

Media

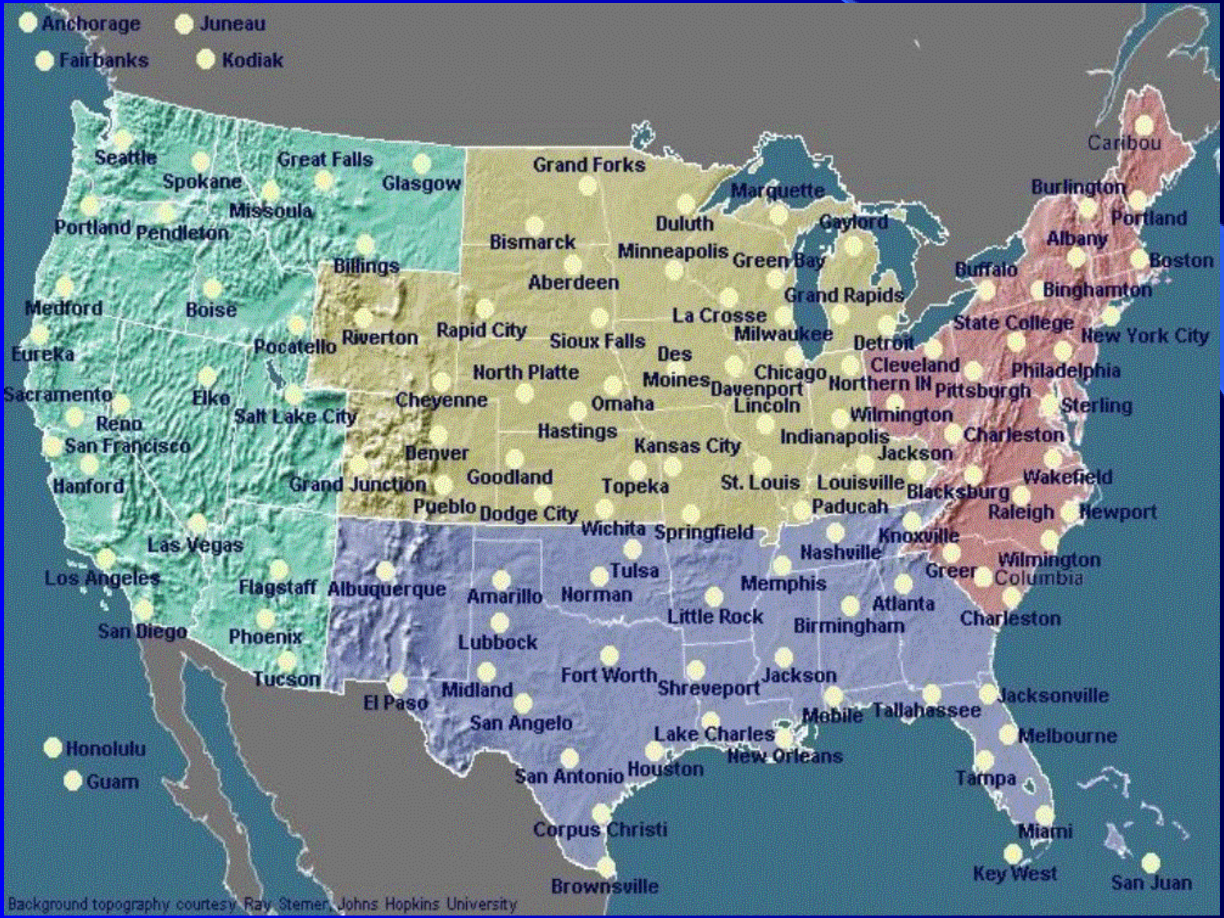
Emergency Management

NWS Volunteers

PD SO FD EMS

Spotters; Hams; Coop Observers

Forecast Offices Nationwide



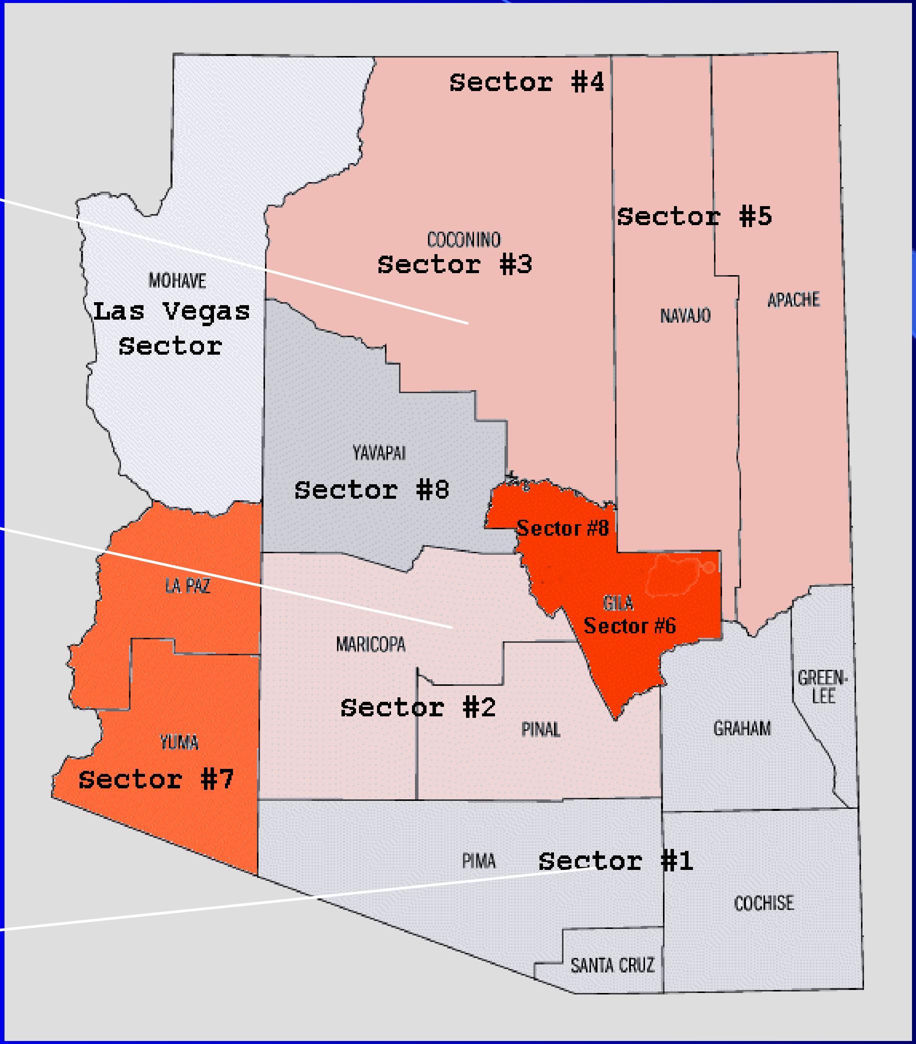
Background topography courtesy Ray Sterner, Johns Hopkins University

Example - Skywarn Sector Map

WFO FLG

WFO PHX

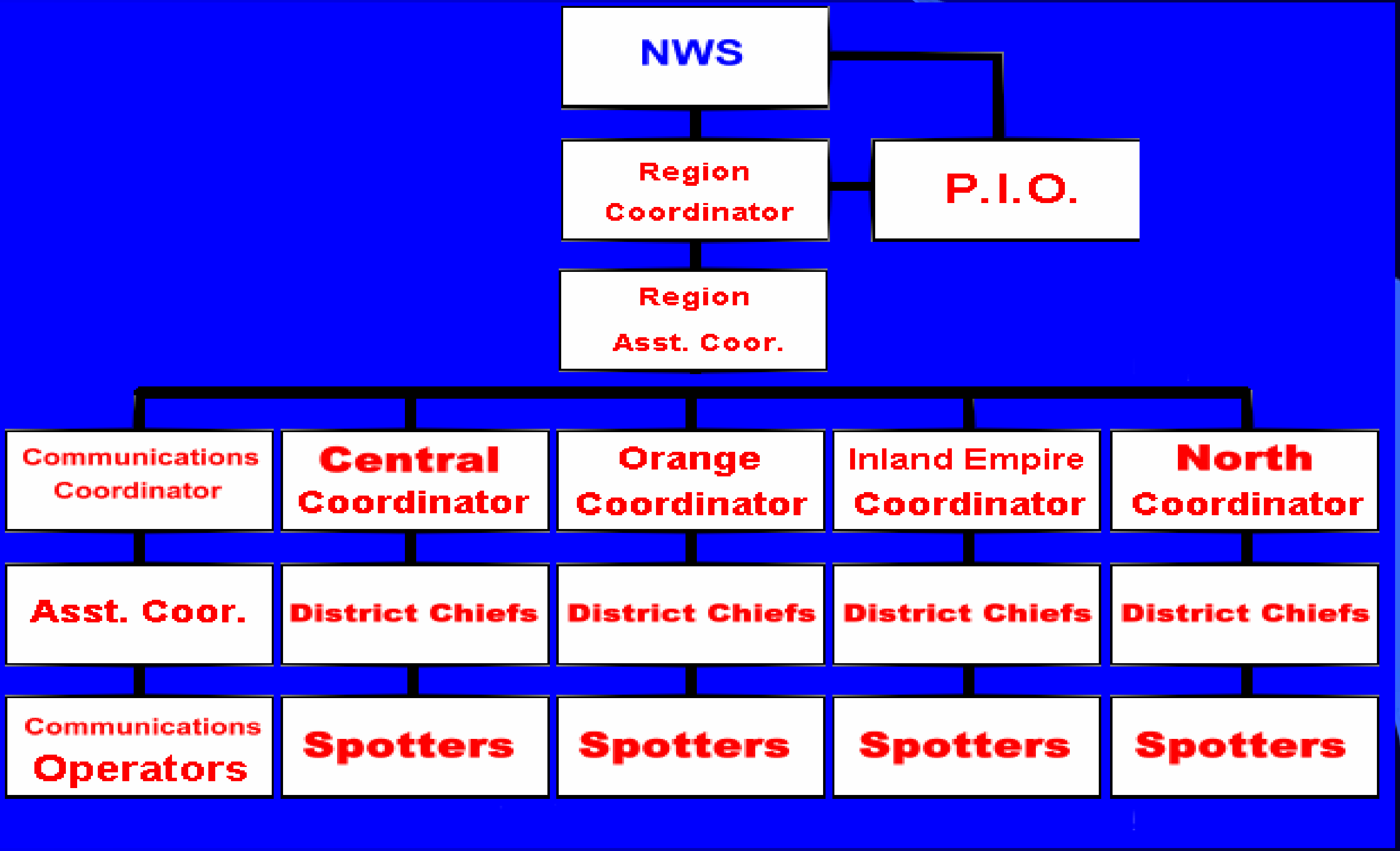
WFO TUC



Example - Skywarn Organization

- Skywarn Advisory Committee
  - Solve operational problems, repeater problems, identify areas that need to be addressed or improved
- Skywarn Management
- Skywarn Program Manager
- Skywarn Amateur Radio Coordinator
- Skywarn Assistant Coordinator
- Skywarn Amateur Radio Training Coordinator

Example – S/W California



NWS

Region Coordinator

P.I.O.

Region Asst. Coor.

Communications Coordinator

Central Coordinator

Orange Coordinator

Inland Empire Coordinator

North Coordinator

Asst. Coor.

District Chiefs

District Chiefs

District Chiefs

District Chiefs

Communications Operators

Spotters

Spotters

Spotters

Spotters

Skywarn Reporting

- Spotters should report:
  - **WHAT** they saw or are seeing,
  - **WHERE** they are or where they were when it was going on,
  - **WHEN** it was occurring and
  - **WHAT** is/was it doing.
- They should also include their name, location and their assigned spotter ID number.
- *SPOTTERS SHOULD NOT CALL NWS PERSONNEL WITH ROUTINE WEATHER OR FOR FORECASTS!!*
- *Property Damage reports can be very important!*

Review of Criteria

1. **TORNADO** (on the ground), **WATERSPOUT** (in thewater), **FUNNEL CLOUD** (tail not touching the ground), or **WALL CLOUD – watch for rotation in the cloud(s), any damage?**
2. **HAIL** (greater than **pea-sized** diameter, any damage?)
3. **LIGHTNING – frequent (4 or more per minute) cloud to ground lightning in forested areas**
4. **DAMAGING WINDS** (estimated or measured sustained at **35 mph** gusts to **50 mph**)
5. **HEAVY RAINFALL** (**1/2 inch** (.50) or more in **1 hour**)
6. **FLOODING** (of any kind)
7. **DAMAGE** and/or **DEATHS** and/or **INJURIES** due to the weather event
8. **HEAVY SNOW** (**1 in.** accumulation per hour, **4 in.** in 12 hours or less)
9. **FREEZING PRECIPITATION** – any accumulation of sleet, freezing rain/drizzle
10. **VISIBILITY** (less than 1/4 mile due to fog, dust, blowing snow or ash)

My Arizona Experiences

Microburst

Summer Monsoon T-Storms

Haboob

NWS Tulsa, OK - SKYWARN 2007

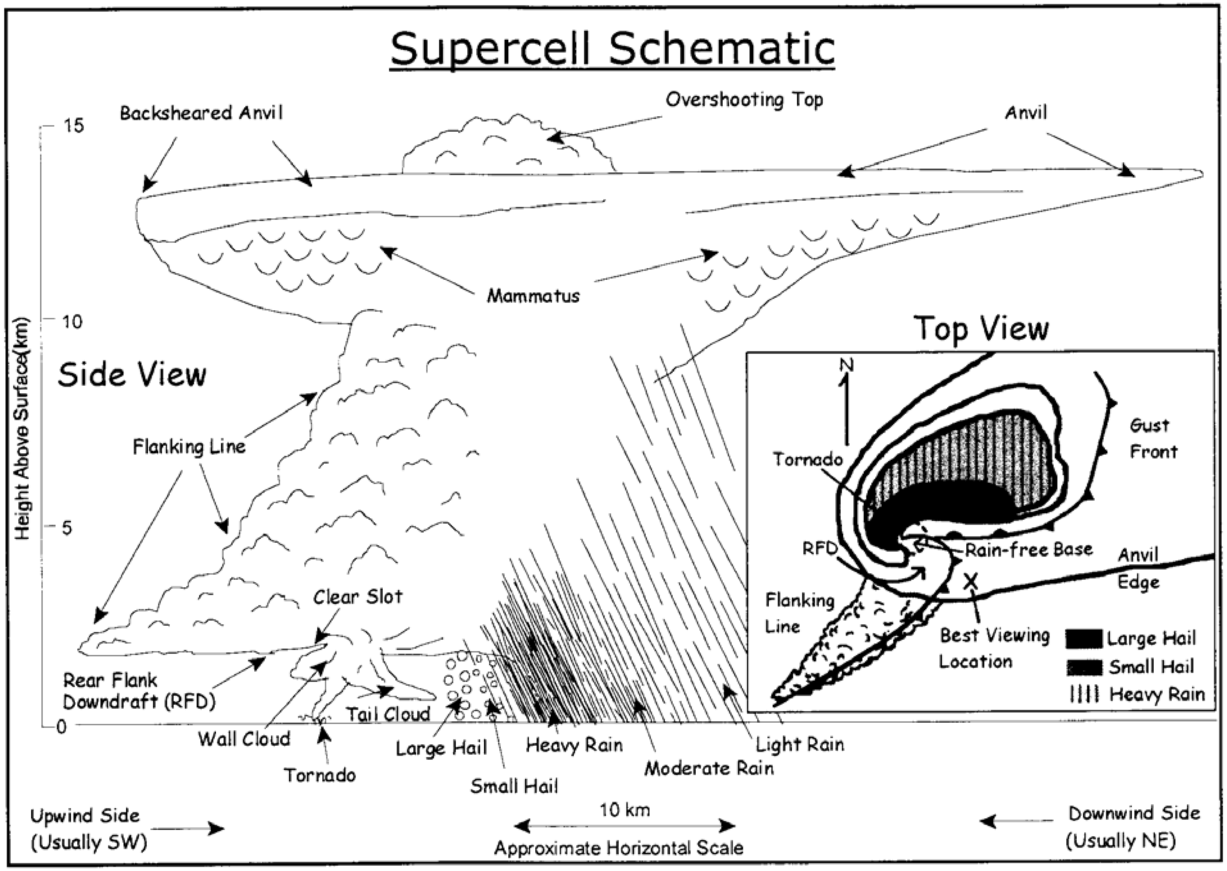
What to Report

- Tornadoes
- Funnel Clouds
- Rotating Wall Clouds
- Hail - penny size (3/4") or larger (use chart on back of card)
- Wind Gusts > 50 mph (estimated/measured)
- Flooding
- Any weather related damage
- Any life-threatening event

NOTE: Do NOT Report heavy rain or lightning

1/18/07 CAS

Supercell Schematic



Skywarn communications options:

- Amateur Radio (HF/VHF/UHF with voice, data, SSTV and Packet/APRS modes available)
- Telephone/Cell Text Messages
- Email/Alphanumeric pagers
- Online Weather Event Reporting via the Internet

Skywarn Communications

- Although Skywarn has many modes of communication, Amateur Radio is a **primary** one
- Severe weather may disrupt power and telephone service
  - This would render phone, internet, and e-mail inoperative to many members
- Many Amateur Radio stations are independent of commercial power and can continue to make reports
- **Skywarn works with many emergency groups to perform its mission**
  - **These groups include ARES, RACES and other local amateur radio groups**

Net Classification

- Informal nets
  - Interest Group Nets
  - Swap Nets
  - Training Nets
- Formal Nets
  - Traffic Nets
  - Emergency Nets
    - started after a **request** for service has been submitted by a served agency through an appointed, local amateur radio ***Emergency Coordinator***

Types of Nets

- Open Net
  - Net is declared, not much happening
  - Generally normal repeater use
    - NCS is there but not in tight control of the frequency
- Directed Net
  - NCS declares the net active
  - NCS controls the frequency
  - Normal use of the frequency stops
  - Specific net topic, conditions, and/or instructions for check-in is given

Skywarn Activations are Formal Directed Nets

Skywarn Net Control

- Skywarn Net Control Station (NCS) Operators
  - Along with **spotter certification**, NCS operators are trained in areas including:
    - Traffic handling,
    - Net etiquette ,
    - Repeater operation and controls (as required),
    - NWS equipment familiarization, and
    - Acquaintance with NWS personnel.

Skywarn Net Control

- Trained NCS operators must be able to:
  - Conduct an activated net
    - Primarily at the NWS office, but…
    - also from a remote location (i.e. home) if required under the circumstances
  - Demonstrate ability to utilize the radios and limited computer resources available
    - Including APRS
  - Have spotter knowledge, and the Ability to follow along with the weather events
    - NWS internet products (radar, etc.)
  - Be "another set of eyes" to the overall weather picture

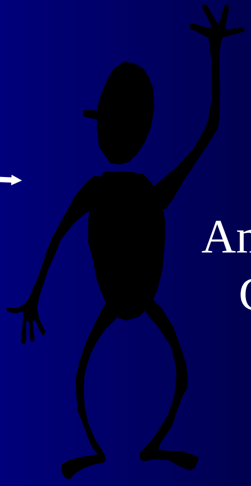
Skywarn Activation Procedures

- **Only** the National Weather Service can make the decision to activate Skywarn
  - Preferred Method: Chain of Command Notification
  - Wait for the NWS to contact the coordinator, or for a coordinator to contact the NWS
    - Never go running down to the NWS office at the first sign of bad weather

NWS Forecaster

Call or Page

Nature of expected severe weather
When? -- Now? Later?
Expected Duration



Amateur Radio
Coordinator

Skywarn Activation

- Once the NWS notifies an amateur radio coordinator on the chain of command, available NCS operators will be identified
  - A Net Control Operator Personnel List is maintained by the amateur Radio Coordinator.
- NCS operator(s) will report to the NWS Office
  - If necessary, the SKYWARN Amateur Radio Coordinator will arrange to activate the net IMMEDIATELY from a remote site such as a house or office.
  - ***HOWEVER.. this is temporary measure only until the operator arrives at the NCS and assumes net control***
- If possible, NCS operator staffing should be in shifts of 2 operators, rotated every 3-4 hours

Behavioral Rules

- Professionalism is #1
- Focus on the NCS job!
  - If you have distractions or other commitments, don’t take the job!
    - You are a volunteer..It’s OK to say “I can’t do this now”
  - Don’t bring visitors or children to the NWS
- If you need help or relief – ask for it!
- At the NWS office, only use equipment we are authorized and trained to operate
- Comply with reasonable requests from the NWS, the served agency

Behavior Rules

- Critical Weather Mode => High Tension
  - Professional Attitude
  - Leave the ego at the door!
- Distractions or interruptions of NWS or Skywarn could mean loss of life or property
- Be sensitive to any information passed
  - Privacy -> Don’t discuss loss of life or property outside the NWS office
- If TV or News Crews are present, refer any questions to the NWS
  - If pressed, you are there to support the NWS as an amateur radio operator.
  - Don’t say “No Comment”

What Should I Bring to the NWS Office?

- The NWS may have an amateur station…but
- A Spare Radio may be handy
- Items to help you in your NCS Operator job:
  - Post-it Notes
  - Extra pencils, paper
- Things you may need
  - Medications
  - Snacks
  - Cell phone

Interaction With the Forecasters

- Upon arrival and prior to assuming net control, forecasters will brief NCS Operator with current weather status
  - Remember during severe weather they are busy, so be respectful and wait until they acknowledge you
- Always use discretion, tack and diplomacy when delivering information
- Periodically you will be updated with the latest information from the forecasters

Initial Briefing

- Where the current storms are located, direction of travel
- Characteristics of the storm
  - Hail
  - Damaging Winds
  - Tornado
- Geographic locations of primary concern for the forecaster
- Latest severe or special weather statements to be read over the net

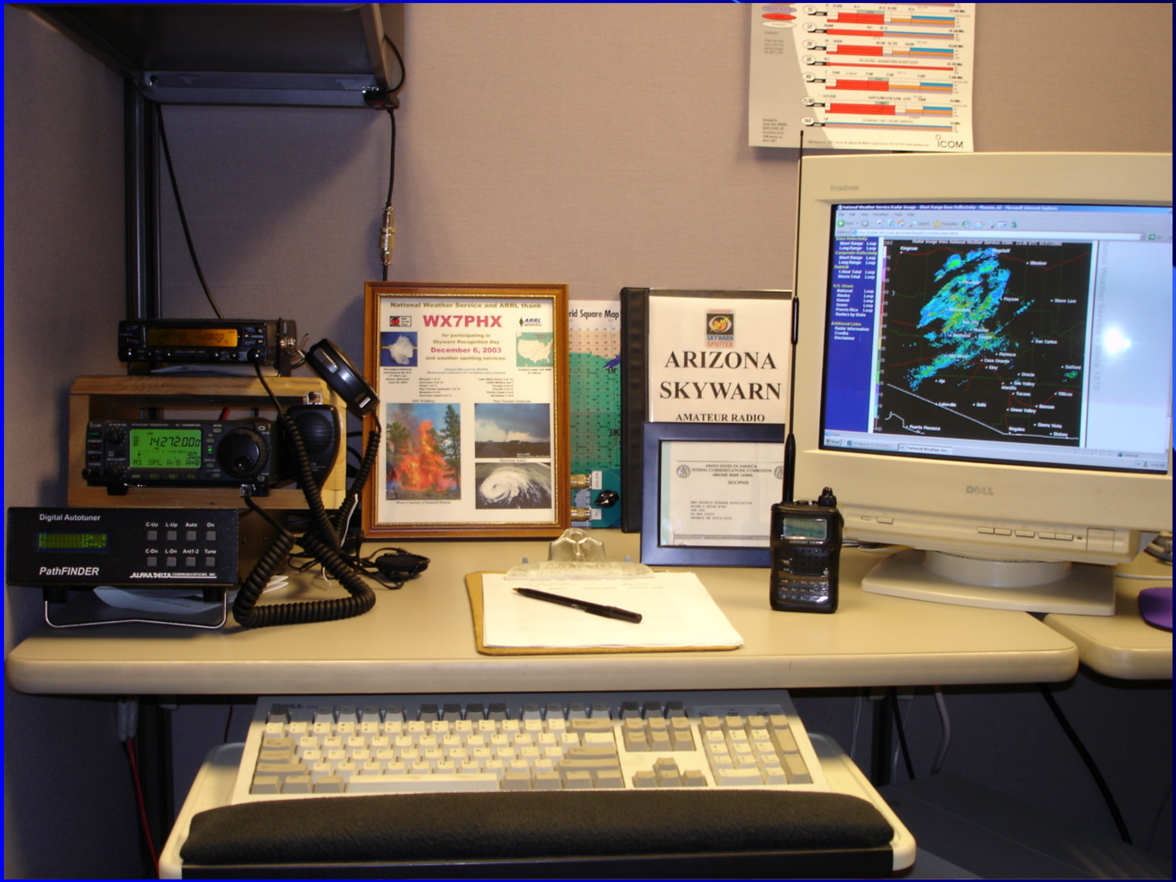
Equipment

- V/UHF Transceiver
  - Local spotter reports
- HF Radio
  - Communicating between WFOs
  - Emcomm
- APRS
  - Real time reports

NWS Office Operating Conditions

WX7PHX Operating Area

NWS Office Operating Conditions


National Weather Service and ARRL thank
WX7PHX
for participating in Skywarn Recognition Day
December 6, 2003
and weather spotting services
Grid Square Map
ARIZONA SKYWARN
AMATEUR RADIO
Digital Autotuner
PathFINDER
ICOM
DELL

WX7PHX Operating Location

Courtesy of KD7CAC

NWS Office Operating Conditions

Steve, KB7QHP & NWS forecaster, taking spotter reports via landline

NWS Office Operating Conditions

NWS Forecasters

Example Skywarn Activation Script

(To be used by the Net Control in Severe Weather)

THIS IS __*(your call sign or the NWS call sign if at the NWS)*___ NET CONTROL, FOR THE ARIZONA SKYWARN NET.

THIS SKYWARN NET IS NOW ACTIVATED FOR SECTOR __*(your sector)*__.

THIS IS A DIRECTED NET. ONLY TRAINED SKYWARN SPOTTER IN SECTOR __*(your sector)*__ OR OTHER HAM OPERATORS WITH SIGNIFICANT WEATHER INFORMATION ARE ENCOURAGED TO PARTICIPATE IN THIS NET.

ALL OTHER STATIONS ARE ASKED TO REFRAIN FROM COMMENTING OR BREAKING IN, EXCPET FOR EMERGENCY OR PRIORITY TRAFFIC. IF CONDITIONS PERMIT, NET CONTROL MAY SOLICIT NON-SPOTTER OBSERVATIONS.

WHEN YOU GIVE YOUR REPORT TO THE NET CONTROL, SAY YOUR CALL SIGN, YOUR NAME AND/OR SPOTTER ID NUMBER, YOUR LOCATION AND TIME OF THE SIGNIFICANT WEATHER INFORMATION. PLEASE SPEAK SLOWLY AND REPEAT YOUR CALL AND SPOTTER NUMBER FOR LOGGING PURPOSES

PLEASE BE BRIEF AND TALK SLOWLY SO ALL SIGNIFICANT WEATHER INFORMATION CAN BE RECORDED AND FORWARDED TO THE NATIONAL WEATHER SERVICE FORCASTERS.

AT THIS TIME, ARE THERE ANY SECTOR *(Sector #)* SPOTTERS WITH ANY CRITERIA, PLEASE REPLY WITH YOUR CALL SIGN, SPOTTER ID # AND NAME AT THIS TIME.

Let Spotters Know What's Happening

- Immediately when net is activated..
  - Inform stations of the current weather situation
    - "The NWS has issued a severe thunderstorm warning for NW portion of the valley. The storm is moving to the east."
  - Keep updating as additional information comes in from the NWS forecasters..
    - "The severe thunderstorm is now over Deer Valley and continues to travel east toward North Scottsdale."
- Remind spotters of criteria

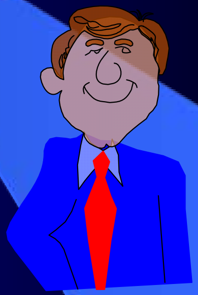
SKYWARN Net Rules

- An NCS operator may ask for:
  - Criteria Reports Only, any location
  - Criteria Reports from a Specific Location
    - If NWS specifies a specific target area
  - General Reports when activity is low

Criteria Reports Take Precedence over Routine Reports

Show Appreciation!

- **Always…**
  - Show interest in the report no matter if criteria or trivial
  - Encourage participation on the net
  - Thank the operator for the report
- **Never…**
  - Turn down a report even if non criteria during a "criteria only" reporting portion
    - "Thank you for that report. Are there any stations with criteria weather to report at this time?"
  - Tell an operator their report is "useless" or "not needed"

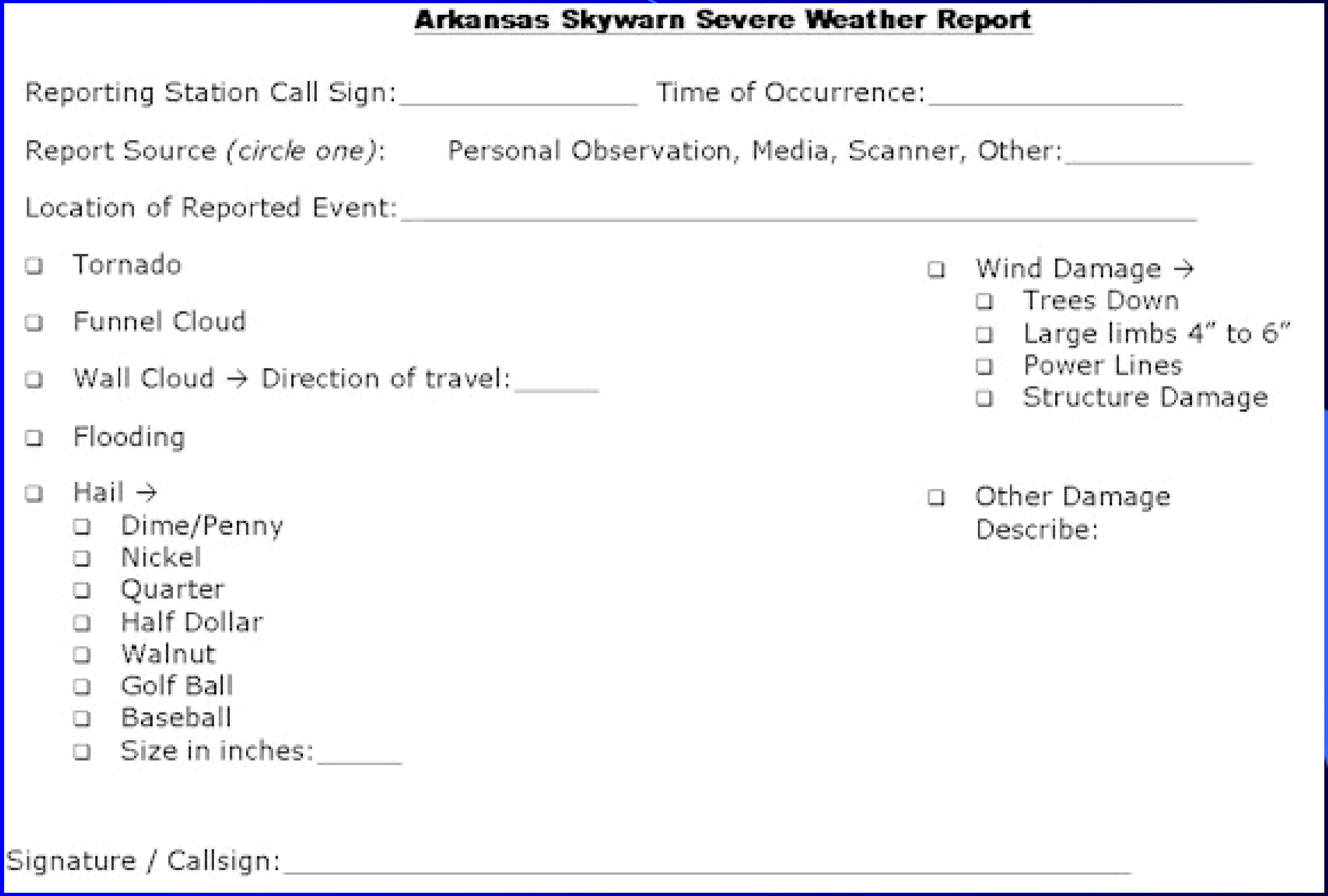


Logging Reports

- Log sheet contains:
  - **WHAT** they saw or are seeing,
  - **WHERE** they are or where they were when it was going on,
  - **WHEN** it was occurring and
  - **WHAT** is/was it doing.
- All traffic, even if it does not contain criteria weather, is to be logged

Logging Reports

- Log sheet contains:
  - NCS Operator Call sign
  - Date and time of Net Activation and Closure
  - Time of **Occurrence** of event
    - Not when it was reported
  - Reporting Station’s Call sign
  - Reporting Station’s Spotter ID
  - Location of reported event
  - Description of event, observation, damage, etc. (specify criteria)
  - Was this a personal observation, second hand report, or after-the-fact observation?
  - Note if NWS forecaster was notified (specify who)



Arkansas Skywarn Severe Weather Report

Reporting Station Call Sign:________________ Time of Occurrence:_________________

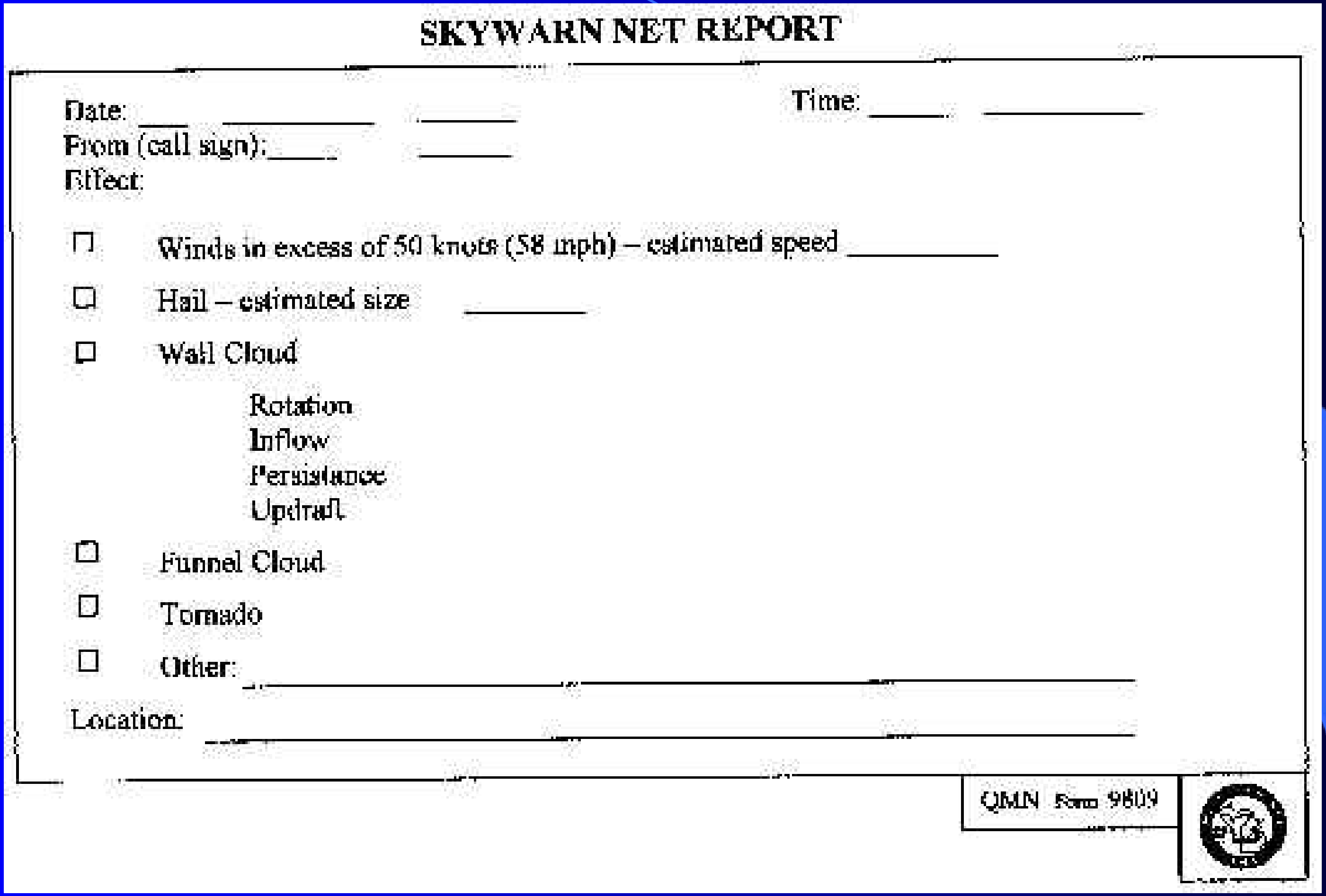
Report Source *(circle one)*: Personal Observation, Media, Scanner, Other:_____________

Location of Reported Event:____

- ☐ Tornado
- ☐ Funnel Cloud
- ☐ Wall Cloud → Direction of travel:______
- ☐ Flooding
- ☐ Hail →
  - ☐ Dime/Penny
  - ☐ Nickel
  - ☐ Quarter
  - ☐ Half Dollar
  - ☐ Walnut
  - ☐ Golf Ball
  - ☐ Baseball
  - ☐ Size in inches:______

- ☐ Wind Damage →
  - ☐ Trees Down
  - ☐ Large limbs 4" to 6"
  - ☐ Power Lines
  - ☐ Structure Damage
- ☐ Other Damage
  Describe:

Signature / Callsign:____



SKYWARN NET REPORT

Date: ____ ____________ ________ Time: ______ ____________

From (call sign):______ _______

Effect:

☐ Winds in excess of 50 knots (58 mph) – estimated speed ____________

☐ Hail – estimated size __________

☐ Wall Cloud

Rotation
Inflow
Persistance
Updraft

☐ Funnel Cloud

☐ Tornado

☐ Other: ______________________________________

Location: ______________________________________

QMN Form 9809

Reporting to the NWS Forecasters

- Remember, the forecasters are generally very busy during severe storms
  - Be patient and wait for them to acknowledge you
- Report only criteria weather observations unless asked for additional information
  - NCS operator must determine if information is “critical” or “potentially life threatening to humans”, or potentially will result in severe damage to buildings/infrastructure
  - This information MUST be reported immediately
  - If unsure of severity, bring it to the forecasters attention

Reporting to the NWS Forecasters

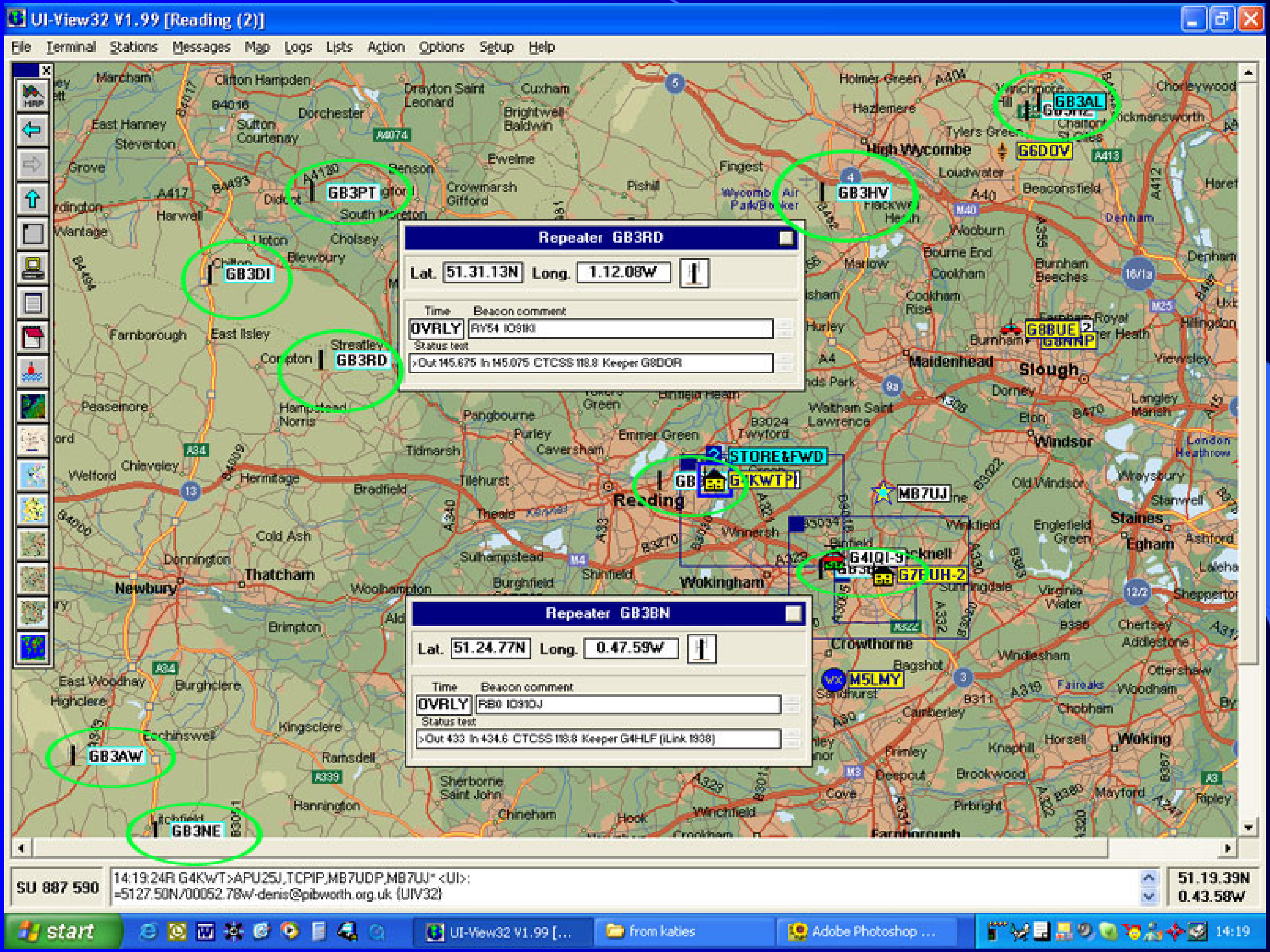
- Make sure you have all information on the criteria weather observation prior to reporting to the forecaster
- Ask if there is additional information they require

Discretion, Tack and Diplomacy

Other Tools

- APRS
  - UI View
    - Another course on its own
    - http://www.ui-view.org/
  - Has real time amateur weather station reports via APRS
- NWS Website
  - Reports from observation locations
  - Radar
  - Satellite Images
    - Use to follow along with weather

UI View



Repeater GB3RD

Lat. 51.31.13N Long. 1.12.08W

Time: OVRLY
Beacon comment: RV54 IO91KI
Status text: >Out 145.675 In 145.075 CTCSS 118.8 Keeper G8DOR

Repeater GB3BN

Lat. 51.24.77N Long. 0.47.59W

Time: OVRLY
Beacon comment: RB0 IO91OJ
Status text: >Out 433 In 434.6 CTCSS 118.8 Keeper G4HLF (iLink 1938)

```
SU 887 590
14:19:24R G4KWT>APU25J,TCPIP,MB7UDP,MB7UJ* <UI>:
=5127.50N/00052.78W-denis@pibworth.org.uk {UIV32}
51.19.39N
0.43.58W
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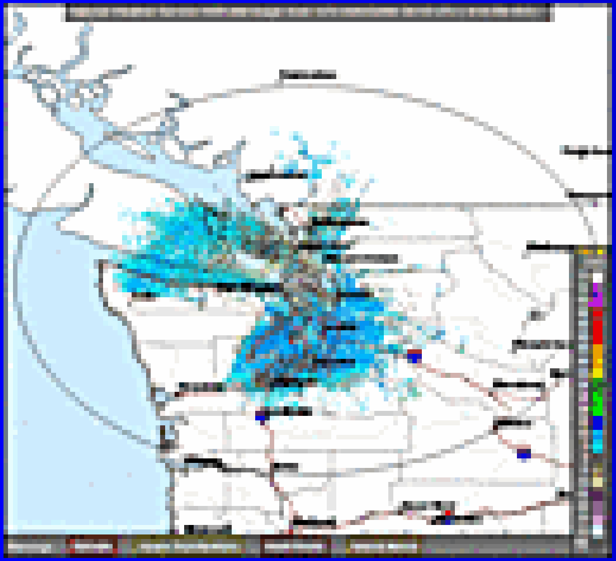
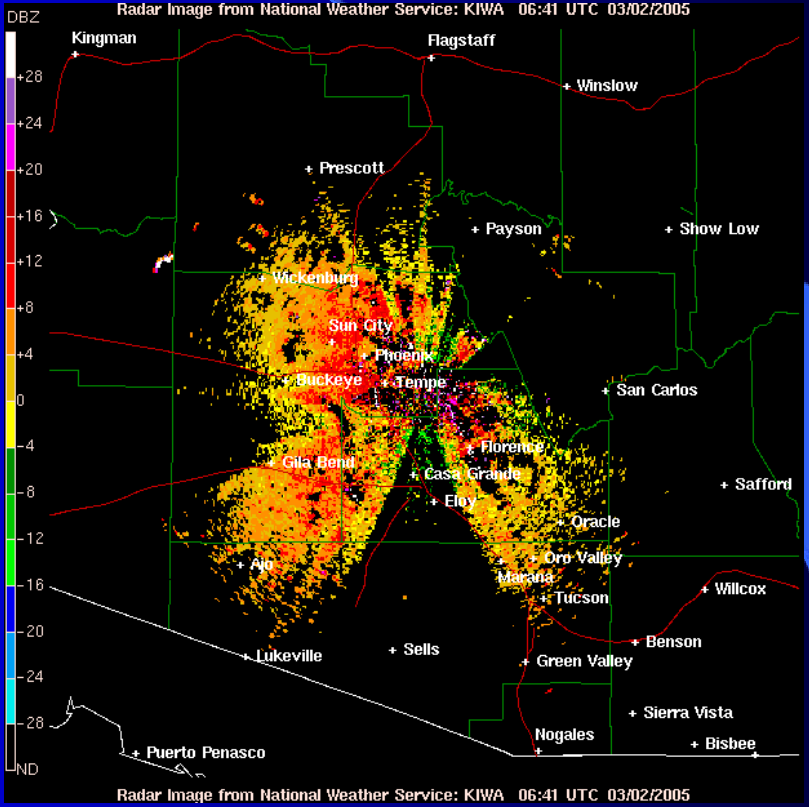
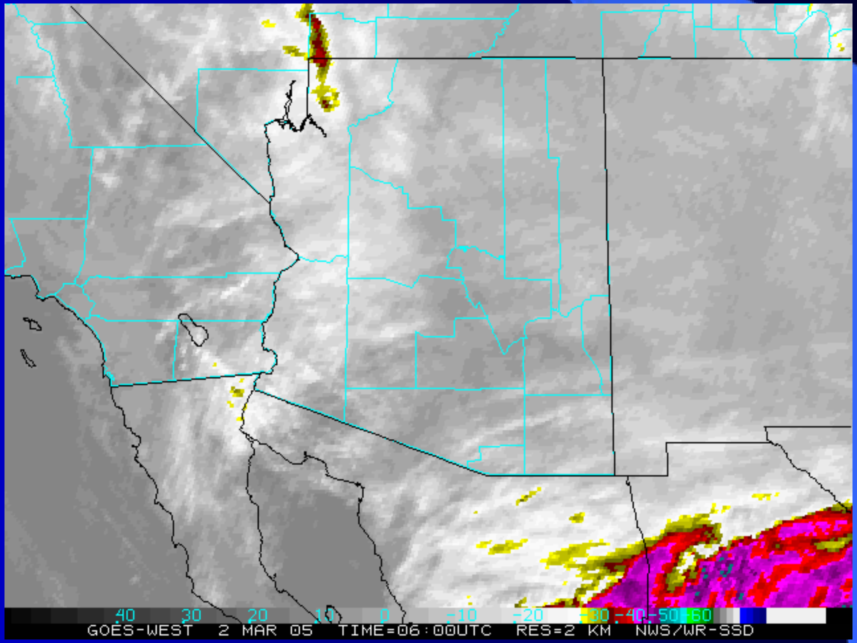
Radar

http://www.weather.gov/radar/radinfo/radinfo.html





Satellite Images

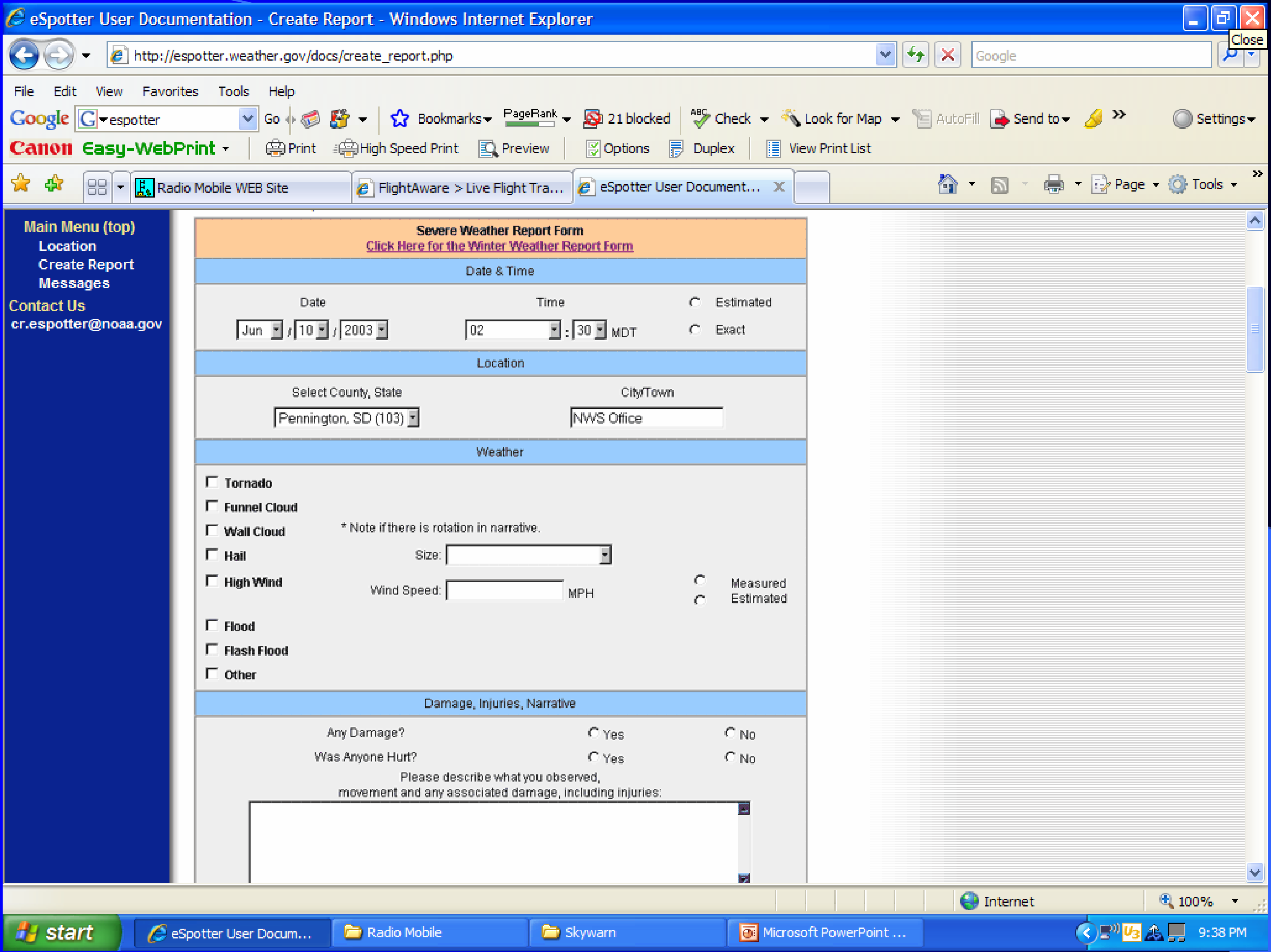


eSpotter

- eSpotter is a system to facilitate the submission of spotter reports online
- The system is being developed to enhance and increase timely & accurate online spotter reporting and communications between spotters and their local weather forecast offices
- The use of the system is currently available for trained spotters and emergency managers
- http://espotter.weather.gov/

eSpotter Weather Forecast Offices

- Aberdeen, SD (ABR)
- Amarillo, TX (AMA)
- Birmingham, AL (BMX)
- Bismarck, ND (BIS)
- Blacksburg, VA (RNK)
- Charleston, WV (RLX)
- Cheyenne, WY (CYS)
- Chicago, IL (LOT)
- Cleveland, OH (CLE)
- CRH HELPDESK, MO (CRH)
- Dallas/Fort Worth, TX (FWD)
- Denver/Boulder, CO (BOU)
- Des Moines, IA (DMX)
- Detroit, MI (DTX)
- Dodge City, KS (DDC)
- Duluth, MN (DLH)
- Gaylord, MI (APX)
- Goodland, KS (GLD)
- Grand Forks, ND (FGF)
- Grand Junction, CO (GJT)
- Grand Rapids, MI (GRR)
- Green Bay, WI (GRB)
- Hastings, NE (GID)
- Indianapolis, IN (IND)Jackson, KY (JKL)
- Kansas City, MO (EAX)
- La Crosse, WI (ARX)
- Lincoln, IL (ILX)
- Los Angeles, CA (LOX)
- Louisville, KY (LMK)
- Marquette, MI (MQT)
- Milwaukee, WI (MKX)
- Minneapolis, MN (MPX)
- Morristown, TN (MRX)
- New York City, NY (OKX)
- Norman, OK (OUN)
- North Platte, NE (LBF)
- Nrn. Indiana, IN (IWX)
- Omaha, NE (OAX)
- Paducah, KY (PAH)
- **Pendleton, OR (PDT)**
- Pittsburgh, PA (PBZ)
- Pueblo, CO (PUB)
- Quad Cities, IA (DVN)
- Rapid City, SD (UNR)
- Riverton, WY (RIW)
- San Angelo, TX (SJT)\
- San Diego, CA (SGX)
- Sioux Falls, SD (FSD)
- **Spokane, WA (OTX)**
- Springfield, MO (SGF)
- St. Louis, MO (LSX)
- Tallahassee, FL (TAE)
- Tampa Bay Area, FL (TBW)
- Topeka, KS (TOP)
- Tucson, AZ (TWC)
- Wichita, KS (ICT)
- Wilmington, OH (ILN)


eSpotter User Documentation - Create Report - Windows Internet Explorer
http://espotter.weather.gov/docs/create_report.php
File Edit View Favorites Tools Help
Radio Mobile WEB Site
FlightAware > Live Flight Tra...
eSpotter User Document...
Main Menu (top)
Location
Create Report
Messages
Contact Us
cr.espotter@noaa.gov
Internet
100%
start
eSpotter User Docum...
Radio Mobile
Skywarn
Microsoft PowerPoint ...
9:38 PM

Severe Weather Report Form

Click Here for the Winter Weather Report Form

Date & Time

Date: Jun / 10 / 2003

Time: 02 : 30 MDT

○ Estimated
○ Exact

Location

Select County, State: Pennington, SD (103)

City/Town: NWS Office

Weather

☐ Tornado
☐ Funnel Cloud
☐ Wall Cloud — * Note if there is rotation in narrative.
☐ Hail — Size:
☐ High Wind — Wind Speed: MPH ○ Measured ○ Estimated
☐ Flood
☐ Flash Flood
☐ Other

Damage, Injuries, Narrative

Any Damage? ○ Yes ○ No

Was Anyone Hurt? ○ Yes ○ No

Please describe what you observed,
movement and any associated damage, including injuries:

What If Skywarn Is Not Activated?

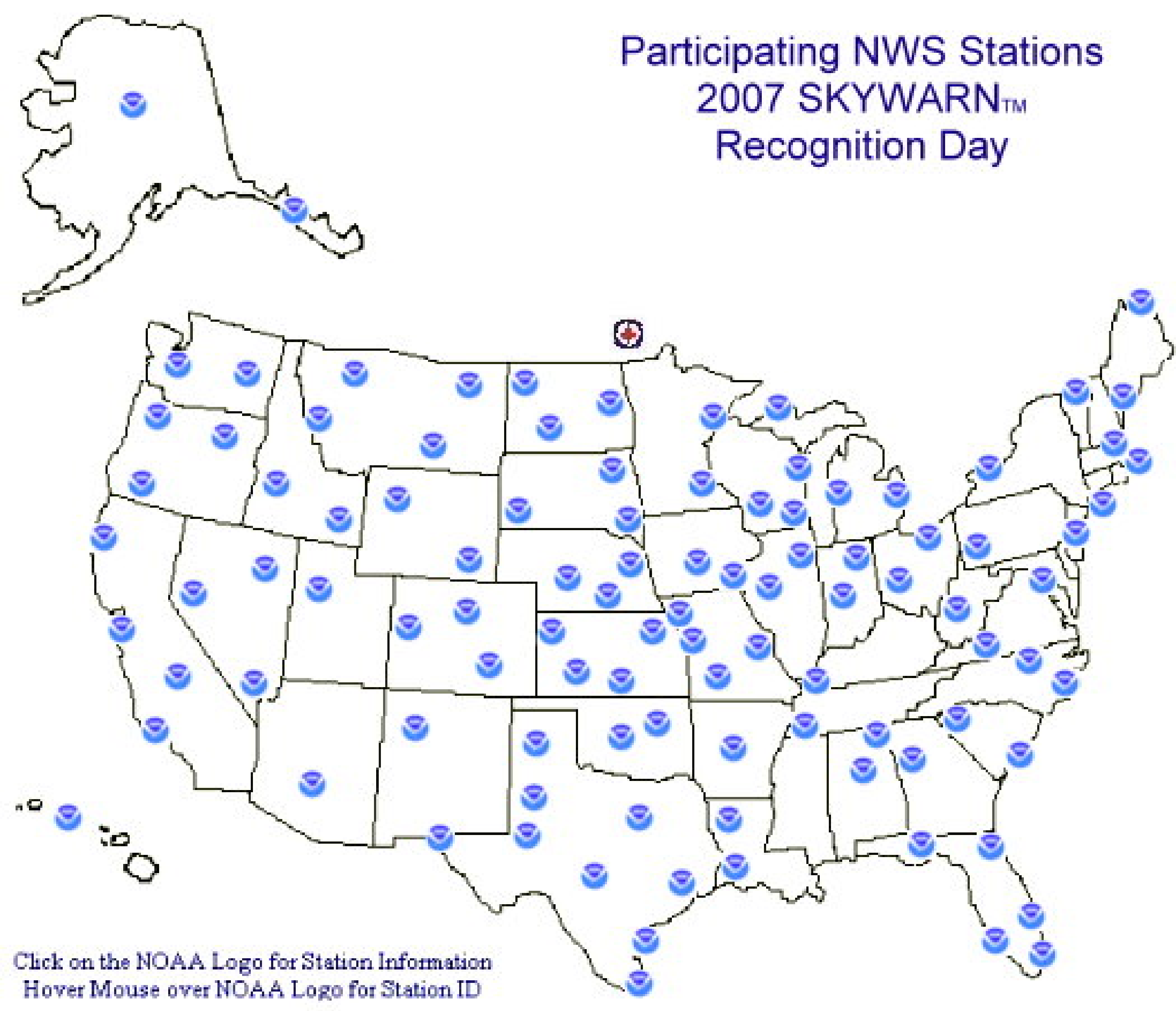
- If the National Weather Service does not determine the need to activate Skywarn, local amateur radio operators may conduct an "informal local weather net"
- At any time, criteria reports may be phoned to the NWS
  - Informal local weather net control may call in reports, or have spotter call them in

Callsigns

- When running a net (activation, informal local weather net, weekly training net) from the NWS office, use the NWS callsign, e.g. WX7SEA
  - *Only use WX7SEA when operating from the NWS office*
- When running a net (activation, informal local weather net, weekly training net) from an alternate location, use you OWN callsign

Other Skywarn Activities

- Regular training drills to keep skills sharp
  - Weekly Amateur Radio net on local repeaters
- Regular local area meetings and training sessions held throughout the year
- The Annual Skywarn Recognition Day which is held in early December
  - This is an event which involves all of Amateur Radio not just Skywarn
  - V/UHF, HF, IRLP, Echolink
  - http://www.crh.noaa.gov/hamradio/index.php


Participating NWS Stations
2007 SKYWARN™
Recognition Day
Click on the NOAA Logo for Station Information
Hover Mouse over NOAA Logo for Station ID

2007 SRD

- Seattle WX7SEA
  - 206 contacts
  - 7 states (via Echolink)
  - 2 NWS offices

Maritime

- Hams operate several maritime "nets" where information of common interest to mariners, such as weather, is exchanged
- These nets are extremely popular in areas of the world which have a large yachting population and where weather is dynamic
- Weather reports are typically exchanged in voice via single sideband although the popularity of digital modes such as SITOR/AMTOR, radioteletype (RTTY), PACTOR I, PACTOR II, PACTOR III, PSK31, and e-mail exchanges, such as WinLink are growing rapidly

Western Washington Skywarn

- NWS Seattle is currently looking at expanding the amateur radio component of Skywarn
  - Based on many concepts presented today
  - Stay tuned!
- WX7SEA uses the K7PP system

Questions???

Thank You Very Much!!!

Your Dedication Is Appreciated!!